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(54) RARE EARTH PERMANENT MAGNET AND ITS  
MANUFACTURE

(57) Abstract:

PURPOSE: To provide high-performance magnet material which has excellent orientation by suppressing magnetic powder coagulation, allowing orientation within the magnetic field and molding and sintering the powder.

CONSTITUTION:  $R_2Fe_{14}B$  intermetallic compound is made the major phase. (R is at least one of rare earth elements which contain Nd, Pr, Ce and Dy). The value of  $I(006)/I(105)$  is made 1.0 or more for forming vertical magnetic field and 0.8 or more for forming horizontal magnetic field. (The value  $I(006)/I(105)$  indicates the X-ray diffraction strength of the (006) plane and the (105) plane of  $Nd_2Fe_{14}$  crystal. The condition of X-ray irradiation is a Cu target and  $2\theta/\theta$  scan).

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